

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
1 April 2004 (01.04.2004)

PCT

(10) International Publication Number
WO 2004/026824 A1

(51) International Patent Classification⁷: **C07D 207/16**,
205/08, C07C 271/16, 59/01, 309/65

(21) International Application Number:
PCT/EP2003/010416

(22) International Filing Date:
18 September 2003 (18.09.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/411,920 19 September 2002 (19.09.2002) US
60/480,242 20 June 2003 (20.06.2003) US

(71) Applicant (for all designated States except AT, US): **NOVARTIS AG** [CH/CH]; Lichtstrasse 35, CH-4056 Basel (CH).

(71) Applicant (for AT only): **NOVARTIS PHARMA GMBH** [AT/AT]; Brunner Strasse 59, A-1230 Vienna (AT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KAPA, Prasad**, Koteswara [US/US]; 4 Faber Road, Parsippany, NJ 07054 (US). **JIANG, Xinglong** [CN/US]; 433 Conover Drive, Hillsborough, NJ 08844 (US). **LOESER, Eric, M.** [US/US]; 2393 Richmond St., Scotch Plains, NJ 07076

(US). **SLADE, Joel** [US/US]; 14 Teresa Drive, Flanders, NJ 07836 (US). **PRASHAD, Mahavir** [US/US]; 27 Davenport Road., Montville, NJ 07045 (US). **LEE, George, Tien-San** [US/US]; 15 Bonnieview Lane, Towaco, NJ 07082 (US).

(74) Agent: **GRUBB, Philip**; Novartis AG, Corporate Intellectual Property, CH-4002 Basel (CH).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SE, SG, SK, SY, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN, YU, ZA, ZW.

(84) Designated States (*regional*): Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **PROCESS FOR PREPARING INTERMEDIATES**

(57) **Abstract:** The present invention is directed to a process for preparing intermediates that are useful to prepare certain antibacterial *N*-formyl hydroxylamine compounds which are peptide deformylase inhibitors. The process makes use of α β -lactam intermediate. Certain optically pure intermediates are also claimed.

WO 2004/026824 A1